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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,225	06/21/2001	Chen-Tsai Lee	P-3641.147	5860

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EXAMINER

LAMARRE, GUY J

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 02/27/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/886,225

Applicant(s)

LEE, CHEN-TSAI

Examiner

Guy J. Lamarre, P.E.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 Dec. 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 11 December 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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FINAL OFFICE ACTION

1. This office action is in response to Applicants' Amendment of 11 Dec. 2003.
- 1.1 **Claims 1-6** are amended, **Claims 11-13** are added, **Claims 7-10** are cancelled. **Claims 1-6 and 11-13** remain pending.
- 1.2 The prior art rejections of record are maintained in response to Applicants' Amendment of 11 Dec. 2003.
- 1.3 The rejections of record under 35 U.S.C. 101 are withdrawn in response to Applicants' amendment of 11 Dec. 2003.
- 1.4 The objections of record are withdrawn in response to Applicants' amendment of 11 Dec. 2003.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first and **second** paragraphs of 35 U.S.C. 112:
 1. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
 2. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 2.1 **Claims 1-6 and 11-13** are rejected under the first paragraph of 35 U.S.C. 112 for failing to describe the manner in which the memory is initialized for detecting weakened memory or how the checking is performed.
- 2.2 **Claims 1-6 and 11-13** are rejected under the second paragraph of 35 U.S.C. 112 for failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention.

As per Claims 1, 4, 11, and intervening claims: It is not clear to the Examiner how the memory is initialized for detecting weakened memory or how the checking is performed. For

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example:

It is not seen when or how the memory is cleared prior to effecting accessing commands.

Is memory initialized to all ones or zeroes?

It is not clear what the accessing commands represent: are they read/write/refresh operations?

It is not seen what is checked by the checking commands.

It is not clear what the checking commands represent or operate on. Is there a compare means so as to compare initial memory values with present values at testing?

It is not clear where the weakened memory is detected.

As per Claims 4, 11, and intervening claims:

It is not clear where the weakened memory is detected.

It is not clear what command actions represent or operate on.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.1 **Claims 4-6** are rejected under 35 U.S.C. 101 as claiming a mathematical formula or algorithm. Applicant is advised to modify limitations of said claims as being incorporated or embedded in hardware or readable machine medium.

Response to Arguments

4. Applicants' arguments of **11 Dec. 2003** have been fully considered, but are not persuasive.

REMARKS

4.0 In response to **Claims 1-6 and 11-13**, Applicants argue, on page 6, that the prior art of record does not teach the claims as amended and that the memory test method is performed in two steps.

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Examiner disagrees and notes that no testing step method is recited as a limitation in any of **Claims 1-6 and 11-13**.

4.1 In response to **Claims 1-6 and 11-13**, Applicants also argue, on page 6, that the prior art of record does not teach the claims as amended because **Hooks** is not related to memory testing but rather to an image generating technique.

Consequently, since **Hooks**, as seen in col. 1 line 8 et seq., is related to memory systems suitable for use in storing data for image processors, it is conceivable that the address generation approach thereof be of practical use in any memory systems, including test systems for such memory.

Examiner thus disagrees and notes that no testing step method is recited as a limitation in any of **Claims 1-6 and 11-13**.

4.2 In response to **Claims 4-6**, Applicants allege, on page 6 last para., that the prior art of record does not teach the claims as amended and that same claims recite testing program for interlaced memory testing.

Examiner thus disagrees and notes that no testing step method is recited as a limitation in any of said Claims, and that the Applicants' prior art Figs. 6-9 show structures requiring equivalent programming language for testing thereof via computer means.

4.3 In response to **Claims 1-6 and 11-13**, Applicants further argue, on page 6 last para., that the prior art of record does not teach the claims as amended and that there is no motivation to combine references for testing.

Examiner disagrees and notes that no testing step method is recited as a limitation in any of **Claims 1-6 and 11-13**.

The **Examiner** also notes that: To establish a prima facie case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge

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generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Therefore, such suggestion or motivation may be found not only in the references but also in the knowledge generally available to one of ordinary skill in the art.

Hence, "In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution combination, or other modification." *In re Linter*, 458 F.2d 1013, 173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 11192).

The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. *In re Fine*, 837 F. 2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). See also *In re Eli Lilly & Co.*, 902 F.2d 943. 14 USPQ2d 1741 (Fed. Cir. 1990) (discussion of reliance on legal precedent); *In re Nilssen*, 851 F.2d 1401, 7 USPQ2d 1500, 1502. (Fed. Cir. 1988) (references do not have to explicitly suggest combining teachings); *Ex parte Clanp*. 227 USPQ 972 (Bd. Pat. App. & Inter. 1985); and *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993) (reliance on logic and sound scientific reasoning).

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Also in reference to *Ex parte Levengood*, 28USPQ2d, 1301, the Court stated, "Obviousness is a legal conclusion, the determination of which is a question of patent law. Motivation for combining the teachings of the various references need not be explicitly found in the references themselves, *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Indeed, the examiner may provide an explanation based on logic and sound scientific reasoning that will support a holding of obviousness. *In re Soli*, 317 F.2d 941, 137 USPQ 797 (CCPA 1963)."

Therefore, absent the positive explicit recitation of testing steps in claims at bar, said claims are not distinguished over the prior art of record.

4.4 To the extent that the response to the applicant's arguments may have mentioned new portions of the prior art references which were not used in the prior office action, this does not constitute new a new ground of rejection. It is clear that the prior art reference is of record and has been considered entirely by applicant. See *In re Boyer*, 363 F.2d 455, 458 n.2, 150 USPQ 441, 444, n.2 (CCPA 1966) and *In re Bush*, 296 F.2d 491, 496, 131 USPQ 263, 267 (CCPA 1961).

The mere fact that additional portions of the same reference may have been mentioned or relied upon does not constitute new ground of rejection. *In re Meinhardt*, 392, F.2d 273, 280, 157 USPQ 270, 275 (CCPA 1968).

Examiner thus maintains that **Claims 1-6 and 11-13** are unpatentable over the prior art of record.

Conclusion

5.1 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee et al. (US Pat. # 5,748,545) discloses odd and even address generation for testing memory arrays.

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5.2 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5.3 Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for formal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy J. Lamarre, P.E., whose telephone number is (703) 305-0755. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached on (703) 305-9595.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Guy J. Lamarre

Guy J. Lamarre, P.E.
Patent Examiner
2/13/04